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| 10/626,340      | 07/24/2003  | Heng Chu             | RSW920030074US1     | 9120             |

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| EXAMINER |
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LOVEL, KIMBERLY M

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2167

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07/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/626,340

Applicant(s)

CHU ET AL.

Examiner

Kimberly Lovel

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 3-5, 7-9 and 11-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-5, 7-9 and 11-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This communication is responsive to the Amendment filed 30 December 2006.
2. Claims 2-5, 7-9 and 11-33 are pending in this application. Claims 13, 24, 26, 31 and 32 are independent. In the Amendment filed 30 December 2006, claims 3, 5, 7-9, 11-13, 21, 24, 25-27 and 31 have been amended; claims 1, 2, 6 and 10 were canceled; and claims 32 and 33 have been added. This action is made Final.
3. The rejections based on prior art of the claims made in the prior office action are withdrawn as necessitated by amendment.

### ***Claim Objections***

3. The objections to claims 13 and 24 have been withdrawn as necessitated by amendment.

### ***Claim Rejections - 35 USC § 112***

4. The rejection of claim 1 under 35 U.S.C. 112, second paragraph, is withdrawn as necessitated by amendment.

### ***Claim Rejections - 35 USC § 101***

5. The rejections of claims 24-25 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter are withdrawn as necessitated by amendment.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 2-5, 7-9 and 11-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 6,591,260 to Schwarzhoff in view of US PGPub 2004/00883221 to Dapp et al (hereafter Dapp).**

**Referring to claim 32**, Schwarzhoff discloses a computer-implemented method of applying abstraction by a validating parser, comprising steps of:

using, by a validating parser, a first syntax level for validating syntax elements when parsing syntax of an input document (see column 5, line 19 – column 6, line 43); and

omitting, by the validating parser, at least one of the validated syntax elements when generating output from the parsed syntax of the input document, wherein each of the omitted syntax elements is valid according to the first syntax level but is not valid according to a second syntax level for which the output is generated (see column 5, line 19 – column 6, line 43). However, Schwarzhoff fails to explicitly disclose the further limitation wherein the parser is a validating parser. Dapp discloses parsing and validating an XML document using a validating parser (see [0026]) in order to increase efficiency by accelerating the validation of structured documents.

It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the parser of Schwarzhoff with the validating parser of Dapp. One would have been motivated to do so in order to increase efficiency by accelerating the validation of structured documents (Dapp: see [0003]).

**Referring to claim 3**, the combination of Schwarzhoff and Dapp (hereafter Schwarzhoff/Dapp) discloses the method according to Claim 32, wherein the input document is a structured document [documents written in a markup language] (Schwarzhoff: see column 4, lines 19-25).

**Referring to claim 4**, Schwarzhoff/Dapp discloses the method according to Claim 3, wherein the structured document is encoded in Extensible Markup Language ("XML") (Schwarzhoff: see column 4, lines 23-25).

**Referring to claim 5**, Schwarzhoff/Dapp discloses the method according to Claim 1, wherein the generated output comprises at least one object representation generated from the input document (Schwarzhoff: see column 5, line 19 – column 6, line 43).

**Referring to claim 7**, Schwarzhoff/Dapp discloses the method according to Claim 33, wherein the second syntax level is requested by specifying a schema name of a schema to which the generated output must adhere (Schwarzhoff: see column 7, lines 19-47).

**Referring to claim 8**, Schwarzhoff/Dapp discloses the method according to Claim 33, wherein the second syntax level is requested by specifying a schema name of

a schema to be used by the validating parser when generating the output (Schwarzhoff: see column 7, lines 19-47).

**Referring to claim 9**, Schwarzhoff/Dapp discloses the method according to Claim 8, wherein the schema name is specified, by the application program, as a feature on an invocation of the validating parser [XML processor contains the parser and validator] (Schwarzhoff: see column 7, line 64 – column 8, line 2).

**Referring to claim 11**, Schwarzhoff/Dapp discloses the method according to Claim 32, wherein the first syntax level is specified in the syntax of the input document (Schwarzhoff: see column 8, lines 22-36).

**Referring to claim 12**, Schwarzhoff/Dapp discloses the method according to Claim 11, wherein the specification in the syntax of the input document uses a schema location construct in the input document (Schwarzhoff: see column 6, lines 65 – column 7, line 47).

**Referring to claim 13**, Schwarzhoff/Dapp discloses a computer-implemented method of casting objects, comprising steps of:

validating syntax elements of an input, using a validating parser, according to a first syntax level while generating output objects, from the input using the validating parser, according to a second syntax level, wherein the generating further comprises suppressing, by the validating parser, at least one of the validated syntax elements from the generated output objects in order that the generated output objects will be valid according to the second syntax level (see column 5, line 19 – column 6, line 43); and

providing the generated output objects, by the validating parser, for use by an application program (see column 5, line 19 – column 6, line 43). However, Schwarzhoff fails to explicitly disclose the further limitation wherein the parser is a validating parser. Dapp discloses parsing and validating an XML document using a validating parser (see [0026]) in order to increase efficiency by accelerating the validation of structured documents.

It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the parser of Schwarzhoff with the validating parser of Dapp. One would have been motivated to do so in order to increase efficiency by accelerating the validation of structured documents (Dapp: see [0003]).

**Referring to claim 14**, Schwarzhoff/Dapp discloses the method according to Claim 13, wherein the second syntax level is a less-restrictive version [pre-existing document type] of the first syntax level [extension] (Schwarzhoff: see column 5, lines 25-26).

**Referring to claim 15**, Schwarzhoff/Dapp discloses the method according to Claim 13, wherein the first syntax level is a more-restrictive definition [extension] of the second syntax level [pre-existing document type] (Schwarzhoff: see column 5, lines 25-26).

**Referring to claim 16**, Schwarzhoff/Dapp discloses the method according to Claim 13, wherein the first syntax level [extension] is an extension of the second syntax level [pre-existing document type] (Schwarzhoff: see column 5, lines 25-26).

**Referring to claim 17**, Schwarzhoff/Dapp discloses the method according to Claim 13, wherein the first syntax level [extension] represents an extension of the second syntax level [pre-existing document type] (Schwarzhoff: see column 5, lines 25-26).

**Referring to claim 18**, Schwarzhoff/Dapp discloses the method according to Claim 13, wherein the first syntax level and the second syntax level are defined using schemas (Schwarzhoff: see column 5, lines 19-46).

**Referring to claim 19**, Schwarzhoff/Dapp discloses the method according to Claim 18, wherein the schema that defines the first syntax level is an extension of the schema that defines the second syntax level (Schwarzhoff: see column 5, lines 19-46).

**Referring to claim 20**, Schwarzhoff/Dapp discloses the method according to Claim 13, wherein the first syntax level represents a plurality of extensions to the second syntax level (Schwarzhoff: see column 5, lines 25-26).

**Referring to claim 21**, Schwarzhoff/Dapp discloses the method according to Claim 13, wherein the generated output objects adhere to a schema that defines the second syntax level (Schwarzhoff: see column 5, lines 19-46).

**Referring to claim 22**, Schwarzhoff/Dapp discloses the method according to Claim 13, wherein the input adheres to an extended schema that defines the first syntax level (Schwarzhoff: see column 5, lines 19-46).

**Referring to claim 23**, Schwarzhoff/Dapp discloses the method according to Claim 22, wherein the generated output objects adhere to a base schema that is extended by the extended schema (Schwarzhoff: see column 5, lines 19-46).



**Referring to claim 24**, Schwarzhoff/Dapp discloses a system for applying abstraction to object markup definitions, comprising:

first means for using the validating parser, executing on the computer, to validate syntax elements specified in an input document expressed as an object markup definition, wherein the validation is performed according to a first syntax level (see column 5, line 19 – column 6, line 43); and

second means for using the validating parser, executing on the computer, to apply abstraction to the object markup definition when generating, from the validated syntax elements, output syntax for at least one output object for use by an application program, responsive to the first means, wherein the applying of the abstraction further comprises suppressing, by the validating parser from the generated output syntax, at least one of the validated syntax elements, in order that the generated output syntax of each generated output object will be valid according to a second syntax level and wherein each of the suppressed syntax elements is valid according to the first syntax level but is not valid according to the second syntax level (see column 5, line 19 – column 6, line 43). However, Schwarzhoff fails to explicitly disclose the further limitation wherein the parser is a validating parser. Dapp discloses parsing and validating an XML document using a validating parser (see [0026]) in order to increase efficiency by accelerating the validation of structured documents.

It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the parser of Schwarzhoff with the validating parser of Dapp. One

would have been motivated to do so in order to increase efficiency by accelerating the validation of structured documents (Dapp: see [0003]).

**Referring to claim 27**, Schwarzhoff/Dapp discloses the system according to Claim 24, wherein the second syntax level is requested by the application program and wherein the application program then consumes at least one of the at least one generated outputs (see column 5, line 19 – column 6, line 43).

**Referring to claim 26**, Schwarzhoff/Dapp discloses a computer program product for parsing of input, the computer program product embodied on one or more computer-usable media and comprising:

computer-readable program code for validating, by a parser, syntax elements of an input document according to a first schema when parsing syntax of the input document (see column 5, line 19 – column 6, line 43); and

computer-readable program code for suppressing, by the parser, at least one of the validated syntax elements when generating output from the parsed syntax of the input document, wherein each of the suppressed syntax elements is valid according to the first schema but is not valid according to a second schema for which the output is generated (see column 5, line 19 – column 6, line 43). However, Schwarzhoff fails to explicitly disclose the further limitation wherein the parser is a validating parser. Dapp discloses parsing and validating an XML document using a validating parser (see [0026]) in order to increase efficiency by accelerating the validation of structured documents.

It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the parser of Schwarzhoff with the validating parser of Dapp. One would have been motivated to do so in order to increase efficiency by accelerating the validation of structured documents (Dapp: see [0003]).

**Referring to claim 27**, Schwarzhoff/Dapp discloses the computer program product according to Claim 26, wherein the first schema specifies a first syntax that is a more-restrictive version of a second syntax specified by the second schema (Schwarzhoff: see column 5, lines 19-46).

**Referring to claim 28**, Schwarzhoff/Dapp discloses the computer program product according to Claim 26, wherein the first schema is defined as an extension of the second schema (Schwarzhoff: see column 5, lines 19-46).

**Referring to claim 29**, Schwarzhoff/Dapp discloses the computer program product according to Claim 26, wherein the first schema is defined as an extension of some intermediate schema that extends the second schema (Schwarzhoff: see column 5, lines 19-46).

**Referring to claim 30**, Schwarzhoff/Dapp discloses the computer program product according to Claim 26, wherein the second schema is a base schema upon which one or more extensions are based, and wherein the second schema is one of the extensions and is based either directly on the base schema or on an intermediate schema that extends the base schema (Schwarzhoff: see column 5, lines 19-46).

**Referring to claim 31**, Schwarzhoff/Dapp discloses a computer-implemented method of providing validation and parsing for clients, comprising steps of:

obtaining an input document to be validated and parsed for the client (see column 5, line 19 – column 6, line 43);

validating syntax elements of the input document with the provided validating parser, wherein the validation is performed according to a first syntax level to which the syntax elements of the input document adhere (see column 5, line 19 – column 6, line 43); and

suppressing at least one of the validated syntax elements when generating output from the input document with the provided validating parser, for use by the client, wherein the generated output has syntax that conforms to the syntax abstraction level that has been dynamically selected by the client; the syntax abstraction level is a less-restrictive version of the first syntax level; and each of the suppressed syntax elements is valid according to the first syntax level but is not valid according to the syntax abstraction level (see column 5, line 19 – column 6, line 43). However, Schwarzhoff fails to explicitly disclose the further limitation wherein the parser is a validating parser. Dapp discloses parsing and validating an XML document using a validating parser (see [0026]) in order to increase efficiency by accelerating the validation of structured documents.

It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the parser of Schwarzhoff with the validating parser of Dapp. One

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would have been motivated to do so in order to increase efficiency by accelerating the validation of structured documents (Dapp: see [0003]).

**Referring to claim 33**, Schwarzhoff/Dapp discloses the method according to Claim 32, wherein the second syntax level is requested, to the validating parser, by an application program for which the output is generated (Schwarzhoff: see column 7, lines 19-47).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 2-5, 7-9 and 11-33 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Contact Information***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly Lovel  
Examiner  
Art Unit 2167

8 July 2007  
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